

ABSTRACT OF THE DISCLOSURE

A semiconductor device comprises capacitor structures, each having a first lower electrode, a first insulating film formed on the first lower electrode and a first upper electrode formed on the first insulating film, and electric fuse elements, each having a second lower electrode, a second insulating film formed on the second lower electrode and having an impurity concentration higher than that of the first insulating film, and a second upper electrode formed on the second insulating film. The electric fuse elements have substantially the same structure as that of the capacitor structures, and they are formed on the same level as that of the capacitor structures. A writing voltage of the electric fuse element is determined by dielectric breakdown resistance of the second insulating film, which depends on the impurity concentration of the second insulating film.